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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,147	11/17/2003	Takahiro Kanzaki	P08095US00/DEJ	7294
881	7590	03/09/2005	EXAMINER	
STITES & HARBISON PLLC 1199 NORTH FAIRFAX STREET SUITE 900 ALEXANDRIA, VA 22314			COHEN, AMY R	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

10/713,147

Applicant(s)

KANZAKI, TAKAHIRO

Examiner

Amy R. Cohen

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/17/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rejected as being indefinite because following the steps of the method of claim 1 will not necessarily result in an elliptical outline. It is unclear as to how one would “establish a first fixed point outside the elliptical structure” in the first step of claim 1, when the method is directed to designing the elliptical structure. It is unclear as to what is meant by “the farthest endpoint of the minor axis through the intersecting point of the major axis and the minor axis.” Since these points are arbitrary and since no “drawing” implement is claimed, it is unclear from the claim language how an elliptical structure would be drawn.

Claim 3 is rejected based on its dependency on rejected claim 1.

Claim 2 is rejected as being indefinite because following the steps of the method of claim 2 will not necessarily result in an elliptical outline. It is unclear as to how one would “establish a first fixed point outside the elliptical structure” in the first step of claim 2, when the method is directed to designing the elliptical structure. It is unclear as to what is meant by “the farthest endpoint of the minor axis through the intersecting point of the major axis and the minor axis.” It is unclear as to what is meant by an “arbitrary angle” since an arbitrary angle could be any angle from 0 to 360 degrees. Since these points and angles are arbitrary and since no “drawing”

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implement is claimed, it is unclear from the claim language how an elliptical structure would be drawn.

Claim 4 is rejected based on its dependency on rejected claim 2.

For purposes of prosecution, Examiner interprets claims 1-4 to be an approximation of an ellipse using arcs of circles.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Langelaan (U. S. Patent No. 5,870,106).

Langelaan teaches a method for designing an elliptical structure which is symmetrical about the major axis and the minor axis thereof, and has an outline of an approximate elliptic curve, comprising the steps of: approximating the shape of the elliptical curve using successive arcs of segmented circles (Col 1, line 50-Col 2, line 62).

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and applications disclose elliptical structures Sims (U. S. Patent No. 6,415,518), Lopez (U. S. Patent No. 6,192,634), Knight (U. S. Patent No. 4,665,664),

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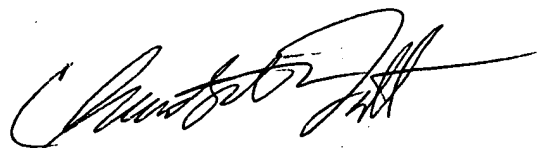
Harris (U. S. Patent No. 3,927,477), Brown (U. S. Patent No. 3,472,033), Chibaeff (U. S. Patent No. 3,438,532), Smith (U. S. Patent No. 2,970,312), Proett et al. (U. S. Patent No. 2,924,021), Himes (U. S. Patent No. 2,827,633), Smith (U. S. Patent No. 773,035), Lehner (U. S. Patent No. 520,003), Fuller (UK Patent Application No. GB 2,155,969A), and Hahlweg et al. (Application Publication No. DE 10,057,636 C1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R. Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC  
March 7, 2005



Christopher Fulton  
Primary Examiner  
Tech Center 2800